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Author : Dwi Ahmad Yani

THE COMPARISON OF TETRACYCLINE AND DOXYCYCLINE TREATMENT ON CORNEAL EPITHELIAL WOUND HEALING IN THE RABBIT ACID-BURN MODEL

Abstrak :

Objective: To demonstrate the comparison of tetracycline and doxycycline in the treatment of corneal epithelial wound healing following acid burning. Material and Methods: Thirteen New Zealand white rabbits (2.5-3 kg) were divided in to three groups and received bilateral acid burns (1N sulfuric acid applied to 5.5 mm diameter circular disc of Whatman 41 filter paper for two minutes). In group 1, four rabbits (eight eyes) served as untreated control. In group 2, four rabbits (eight eyes) received tetracycline (50 mg/kg) orally daily for 14 days. In group 3, five rabbits (ten eyes) received doxycycline (5mg/kg) orally daily for 14 days. The reepithelization was monitored by means of fluorescein staining and slitlamp. Statistical analysis used were one-way annova and chi-square test with significancy of 0.05. Results: After 14 days, the mean diameters of corneal epithelial defect were 3.30 mm, 2.00, and 2.62 mm, respectively. The results of one-way annova test indicated that between the 5th until 10th day of observation, the mean diameters of corneal reepithelization in group 2 and 3 were found to be statistically significant (p

Keyword :

corneal epithelial wound healing, doxycycline, rabbit acid-burn model, tetracycline